

<https://descartes-and-woolf.appspot.com/>

Artist's Statement

My Unessay is a website: <https://descartes-and-woolf.appspot.com/>

Unessay Thesis:

Descartes and Woolf both wrote about introspective experiences, but the style, subject matter, and presentation differences in their writing present drastically different expressions of introspection.

Unessay Goal:

My Unessay is an interactive tool where the style, subject matter, and presentation differences between Descartes and Woolf can be seen based on the input given by a user.

Functionality:

The example input for search and text generation is: "think"

Screenshot of search results in Figure A (pg. 4)

Screenshot of generation results in Figure B (pg. 5)

Through the search function (<https://descartes-and-woolf.appspot.com/>), an input subject (in the form of a word, symbol, or phrase) is given by a user and all sentences/passages in Descartes' and Woolf's works [1-6] that contain the input are shown.

The search results will show style differences such as punctuation used, word choice, and average sentence length between sentences that contain the same input phrase written by different authors.

The results for "think" (Figure A) show that Descartes' writing has much longer sentences with complex and logically dependent phrases, whereas Woolf's writing has short sentences with casual wording.

Figure A also shows 2 sentences where Woolf uses ellipses and no ellipses in Descartes' sentences.

Search results will also show subject matter differences in a quantitative way; inputs serve as topics and the number of results containing the input can be considered the number of sentences/passages concerning the given topic. The results can also show subject matter differences in a quantitative way, showing evidence of differences in how the authors wrote about the same topic. Trying different inputs can show the user which topics one author writes extensively on that the other author doesn't, or both authors write about in very different contexts.

Figure A shows that Descartes uses the topic/input (“think”) as part of his own explanations, arguments, and ponderings about cognition and existence, whereas Woolf uses “think” as an action a character is doing or part of a thought a character is expressing.

From the size of the right scroll bar within each author’s search results, it can be seen that Descartes has more passages that contain “think”, which shows and accurately reflects that his works heavily discuss cognition.

The search function will display differences in both writers’ presentation in the form of differing writing genre and point of views. Woolf writes fiction, so her writing includes characters and their actions and cognition. Descartes’ works are philosophical, where he presents his own logical arguments and thoughts.

Figure A shows that Descartes’ writing only has the first person, where he’s expressing his thoughts and an explanation of his logic that led him to his views. This aligns with philosophical writing as a genre. Figure A shows that Woolf’s writing has third person point of view when she’s describing actions or thoughts of characters. She has first person writing as well, where the thoughts expressed are observations or subjective opinions rather than logical explanations.

Through the textbots and their text generation function (<https://descartes-and-woolf.appspot.com/textbots>), an input subject (in the form of a word, symbol, or phrase) is given by a user and up to 100 randomly generated sentences that contain the input are shown. DescartesBot is a Markov Chain model built with the text of all of Descartes’ works [1-3], and WoolfBot is an analogous model built with all of Woolf’s works [4-6]. Up to 100 sentences can be shown for each model.

A high-level description of how these models are created is: all words and punctuation in the text the model is built with are considered states, and probabilities of sequences of states (sentences) are learned based on the frequency of words and punctuation in the text the model is built upon.

This means the probability of a user’s input being included in a randomly generated sentence reflects the frequency of the input in the text the model was built upon. It also means that the word choice, punctuation, and word ordering generated by the textbots will reflect the writings the model was built with.

****Note:** There’s randomness involved in textbot-generated results (also the generated sentences are not guaranteed to make sense or be grammatically sound), so the most dependable tool to show evidence of differences between authors is the search function. Also note that the same input will most likely generate different output each time, whereas the search function will always return the same text for the same input.

In my Unessay Precis I expressed that the textbots were planned as a bonus, fun exploratory feature of the Unessay and the main expression of my argument is through the search function.

Textbot results will show the same style differences mentioned above for the search function (punctuation, word choice, sentence length).

In Figure B it can be seen that WoolfBot’s output has shorter sentences and DescartesBot’s output has drier word choice, which correctly reflects Descartes’ philosophical writing style and Woolf’s modernist, short-story writing style.

Textbot-generated text will also show subject matter differences in the same aforementioned quantitative and qualitative ways.

Figure B shows that DescartesBot had notably more to say about the input “think” than WoolfBot. This aligns with the fact that Descartes writes heavily about cognition, whereas Woolf writes about character’s reflective experiences rather than analyzing cognition itself.

Text output from each textbot should contain differing point of view and genre to reflect that Descartes writes philosophy and Woolf writes fiction.

Figure B shows that WoolfBot’s text is in the second and third person and describes characters or sensory experiences. This contrasts DescartesBot’s text that is in first person and states and explains DescartesBot’s thoughts and beliefs.

Why Descartes and Woolf?

Both authors wrote about introspective experiences but offer very different reading experiences and contexts for introspection. This made me interested in exploring both authors’ works in a more thorough and interactive way.

Why These Works of Descartes and Woolf? [1-6]

I included [2, 4-5] since we read them in class. I knew the two short stories from Woolf would not be enough to build a textbot from or provide many interesting sentences to search through, so I chose to include a novel from Woolf [6] to provide text volume. I chose *Mrs Dalloway* because it’s one of her seminal works and available for free download.

I wanted to use approximately the same amount of text from both authors to have equal representation in the project. Two of Descartes’ books [1, 3] in addition to [2] were needed to match the amount of text in [4-6].

Why a Website with Search and Textbots?

I’m studying computer science and believe computation is a powerful tool to enable more efficient and thorough explorations of writing. I wanted a website because of the accessibility it provides; everyone in the class and anyone online can explore Descartes’ and Woolf’s works!

I found myself using “ctrl-f” search on texts often when writing my short essays, as I was looking for a specific topic or theme across lots of text. Providing a search through Descartes’ and Woolf’s works stemmed naturally from this.

I’m very interested in generative AI and thought having specific authors’ text to analyze gave me a great opportunity to explore how well models could mimic an author.

Figure A

| Results from Descartes' Writings: |
|---|
| <p>And, on the other hand, always when I direct my attention to things which I believe myself to perceive very clearly, I am so persuaded of their truth that I let myself break out into words such as these: Let who will deceive me, He can never cause me to be nothing while I think that I am, or some day cause it to be true to say that I have never been, it being true now to say that I am, or that two and three make more or less than five, or any such thing in which I see a manifest contradiction.</p> <p>And my principal task in this place is to consider, in respect to those ideas which appear to me to proceed from certain objects that are outside me, what are the reasons which cause me to think them similar to these objects.</p> <p>For [even] when I think that a stone is a substance, or at least a thing capable of existing of itself, and that I am a substance also, although I conceive that I am a thing that thinks and not one that is extended, and that the stone on the other hand is an extended thing which does not think, and that thus there is a notable difference between the two conceptions—they seem, nevertheless, to agree in this, that both represent substances.</p> <p>To speak the truth, I see nothing in all that I have just said which by the light of nature is not manifest to anyone who desires to think attentively on the subject; but when I slightly relax my attention, my mind, finding its vision somewhat obscured and so to speak blinded by the images of sensible objects, I do not easily recollect the reason why the idea that I possess of a being more perfect than I, must necessarily have been placed in me by a being which is really more perfect; and this is why I wish here to go on to inquire whether I, who have this idea, can exist if no such being exists.</p> |
| Results from Woolf's Writings: |
| <p>So now I think of the fire; the steady film of yellow light upon the page of my book; the three chrysanthemums in the round glass bowl on the mantelpiece.</p> <p>That is the sort of people they were—very interesting people, and I think of them so often, in such queer places, because one will never see them again, never know what happened next.</p> <p>I want to think quietly, calmly, spaciouly, never to be interrupted, never to have to rise from my chair, to slip easily from one thing to another, without any sense of hostility, or obstacle.</p> <p>Of the two I should prefer them to be tombs, desiring melancholy like most English people, and finding it natural at the end of a walk to think of the bones stretched beneath the turf....</p> <p>I can think sitting still as well as standing up.</p> <p>Whitaker knows, and let that, so Nature counsels, comfort you, instead of enraging you; and if you can't be comforted, if you must shatter this hour of peace, think of the mark on the wall.</p> <p>That is what one wants to be sure of.... Wood is a pleasant thing to think about.</p> |

Figure B

Input You Gave the Bots to Include in Their Writing: think

DescartesBot Says:

For this reason I here make a public declaration, though well aware that there were no minds, nor any bodies: was I not too much time and leisure remaining to me to think out, as soon as he explains them.

And our mind cannot easily divide into parts, and do not possess very exact demonstrations, I am or that we have no ground on this account, are not themselves very minute, but are like painted representations which can be easily detached from the fact that we even have neither hands nor feet, nor, finally, a body; but we cannot imagine so many other things of which we think duration itself, for we can conceive extension without figure or image of a corporeal thing.

After this, that you will also have added a word of advice regarding the manner in which both exist; there is just ground to expect that the understanding only, and since I have not treated in it many different senses as we do, that is, towards the erection, so, in destroying such of its parts, whereas our senses present to the opinions of others, I foresee that I might afterwards be in harmony with the reasons I have judged it to be nothing while I think I have done all that is contained in this cavity; so that they can never be deceived; for since I am something.

That some attributes exist in us should not consider one single creature separately, when we have sometimes seen bodies triangular in shape; because I can connect the perceptions of sense perception, and that while I speak and approach the fire that is to be avoided, and others a sun and the things which do not depend on certain particular experiments that might even in what I think I touch the earth water, air, fire, minerals, and some one certain objective reality rather than my mind.

WoolfBot Says:

So, thought Septimus, looking up, suddenly sees the giant figure at the end of the storm; then the hour, one, two, three, she did think him a taste of Antony and Cleopatra and the response to old devotions.

For think what it was for the last storm comes and, falling, the highest faculties, are not of wife or child, but of the sound, the direct downright sound of the mouth and the earth, then the grinding of the grass, they wavered and quivered and threatened to kill himself.

Works Cited

- [1] Descartes René. *Discourse on the Method*.
- [2] Descartes René. *Meditations on First Philosophy*.
- [3] Descartes René. *Principles of Philosophy*.
- [4] Woolf Virginia. *Kew Gardens*.
- [5] Woolf Virginia. *Mark on the Wall*
- [6] Woolf Virginia. *Mrs Dalloway*

Technical Tools Used

Python (programming language) – <https://www.python.org/>

Flask (framework for hosting and running python in a website) – <https://palletsprojects.com/p/flask/>

Bootstrap (visual template for website display) – <https://getbootstrap.com/>

Markovify (python package for textbot model creation and usage) – <https://pypi.org/project/markovify/>

Google Cloud App Engine (free webserver that the project's code is run on) – <https://cloud.google.com/appengine/>

Natural Language Toolkit (python package for sentence extraction) – <https://www.nltk.org/>

All other code was implemented from scratch. Code and a timeline of development is [here](#).